

VIRGINIA

DJ GRANT F-111-R-11, PROJECT 11

Northeast Reservoir

2003

KEY FINDINGS

- Sampling collected 50 bass and 99 bluegill
- Bluegill ranged from 3 to 8 inches with most 5 inches or less, catch rate (CPUE) for stock sized bluegill was 46 (well below the statewide 25 percentile), the PSD of 31 and RSD-P of 12 met and were above statewide averages, respectively
- Bass ranged from 4 to 18 inches but most averaged 11 inches or less, catch rate (CPUE) of 9 for stock sized largemouth and the PSD of 32 were both below statewide averages, but the RSD-P of 21 was above average
- Extensive beds of cow lily line the shoreline for much of the lake
- Most large bass are in the extensive standing timber found throughout the reservoir
- Department personnel should resample in 2007

Northeast Reservoir Fisheries Management Report - 2003

Northeast Reservoir is one of the newest medium sized reservoirs in Virginia. This 170-acre impoundment was built in 1983 and provides drinking water for the towns of Louisa and Mineral in Louisa County. Located east of Louisa, this reservoir is not well known as a resource for anglers but provides a great opportunity for bass anglers in a very pristine, rural setting with little interference from other anglers. Most local residents are aware of the reservoir but few anglers venture to the lake from any great distances. The entrance to the reservoir is on Route 33 about five miles from Louisa. Not well marked, the entrance road is on the north side of Route 33 and can be easily missed.

The reservoir was opened to the public in 1987. Initially stocked with largemouth bass, bluegill, redear sunfish, and channel catfish, the only fish now stocked are catfish every other year. Until the early 1990's the largemouth population was too small and additional fingerlings were stocked in 1986 followed by adult bass in 1993. Also, in 1991 a more restrictive 18-inch and 2 bass per day regulation was imposed and by 1995 the bass population was showing some strong improvement.

Sampled by using a boat electrofisher in May of 2002, Department personnel collected six different sport fish species. Catch rates for those species collected were compared to rates from previous samplings as well as catch rates from other, similar sized lakes in Virginia.

Although a few chain pickerel and channel catfish were collected, largemouth bass were the predominate sport fish and certainly are the major predator fish in the impoundment. The reservoir has always had a largemouth bass catch rate that was below statewide average and that trend has continued if not worsened over the last four years. Bass growth rates and condition (weight), too, have continued to be poor. However, a more than adequate number of bass over twelve inches in size that has continued to expand over the last 5 – 10 years, should provide and support a good bass fishery. Although the bass ranged from 4 to 19-inches, with most under 12 inches, four of the 50 bass collected were over 18-inches; one of which approached 20-inches in length. Surprisingly, during this spring (middle May) collection, few bass were collected off the extensive weeds (lily pads) along the shoreline. The best collection sites for trophy bass has always been, and remains, in the extensive standing timber along the western and northern shoreline.

The bream population in Northeast Reservoir remains poor although there has been some improvement in the population over the last four years. Bluegill ranged from 3 to 8 inches with most 5-inches or less. However, it was an encouraging sign that more bluegill at least 6-inches or longer were collected in 2002 than in 1998. Seventeen (14%) of the bream collected were 8-inches or longer. Prime bream habitat in the eastern arm (cove) of the reservoir did not produce large numbers of bluegill and redear sunfish. Few were even collected around the beaver lodge and brush piles (food caches) within this cove. Surprisingly, only a few black crappie were sampled in this area as well.

Primary productivity in the lake may prove to be a problem for fish production. The reservoir is treated periodically to reduce or prevent algal blooms and reduce costs at the water treatment plant. That and the extensive weed beds throughout the lake reduce primary food production in the water column and, indirectly, can adversely effect fish production.

Because the bass population has not shown any consistent improvement and has basically remained at levels seen in the early 1990's, the restrictive 18-inch, 2 per day size and creel regulation should be removed and the statewide possession limit of 5 per day imposed. Any changes in the bass population due to the less restrictive regulation will be assessed over the next two sample cycles.

Little can be done to improve the bream population but an effort will be made to improve the signage at the entrance to the reservoir on Route 33. Channel catfish will continue to be stocked every other year or as available, and Department personnel should resample in 2007.

Come visit Northeast Reservoir soon. There is ample parking and a gravel ramp that accommodates most boats. You will be pleased and find your visit fruitful and enjoyable.

District: 9

Lake: Northeast Reservoir

Year: 2002

HISTORICAL ELECTROFISHING POPULATION STATISTICS(Numbers in parenthesis are statewide 50th percentiles)

	Year	Effort (hours)	CPUE			Population Indices		
			Stock (106)	Quality (32)	Preferred (0)	PSD (30)	RSD-P (0)	RSD-M (0)
Bluegill	2002	2.1	46	14	6	31	12	0
	1998	1.0	65	9	1	14	2	0
	1995	1.1	138	14	0	10	0	0
	1990	0.8	61	65	0	51	0	0
Largemouth Bass	Year	Effort (hours)	Stock (49)	Quality (17)	Preferred (7)	PSD (41)	RSD-P (14)	RSD-M (1)
	2002	2.1	9	3	2	32	21	0
	1998	1.0	27	12	6	44	22	0
	1995	1.1	13	11	4	86	29	14
	1990	0.8	7	10	4	57	21	0

District: 9 Lake: Northeast Reservoir

Year: 2002

Length-Frequency Data for Bluegill and Largemouth Bass

	BLG	LMB		BLG	LMB
Length	Number	Number	Length	Number	Number
4	1		35		
5			36		
6			37		
7	2		38		
8	11		39		
9	10	1	40		
10	13	3	41		
11	11	1	42		
12	9	9	43		
13	9	5	44		
14	3	10	45		
15	3	1	46		1
16	2		47		1
17	3		48		
18	5	1	49		1
19	5		50		1
20	12		51		
21			52		
22		1	53		
23		2	54		
24		4	55		
25		1	56		
26			57		
27			58		
28		4	59		
29		1	60		
30			61		
31			62		
32		1	63+		
33		1	Total #:	99	50
34					

District: 9

Lake: Northeast Reservoir Year: 2002

CPUE Data for Largemouth Bass and Bluegill

					Deviation from State Percentiles		
	Indice	Effort/ hour	Sample Size	#/hour	25%	50%	75%
Bluegill	Stock	2.1	96	46	-21	-60	-143
	Quality	2.1	30	14	-1	-18	-39
	Preferred	2.1	12	6	6	6	2
	Memorable	2.1	0	0	--	--	--
	Trophy	2.1	0	0	--	--	--
Largemouth Bass	Stock	2.1	19	9	-16	-40	-58
	Quality	2.1	6	3	-7	-14	-26
	Preferred	2.1	4	2	-1	-5	-9
	Memorable	2.1	0	0	0	-1	-2
	Trophy	2.1	0	0	--	--	--

Population Indice Data for Bluegill and Largemouth Bass

				Deviation from State Percentiles		
	Indice	Sample Size	Value	25%	50%	75%
Bluegill	PSD	96	31	16	1	-16
	RSD-P	12	12	12	12	9
	RSD-M	0	0	--	--	--
	RSD-T	0	0	--	--	--
Largemouth Bass	PSD	19	32	8	-9	-27
	RSD-P	4	21	16	7	-5
	RSD-M	0	0	0	-1	-4
	RDS-T	0	0	--	--	--

District: 9

Lake: Northeast reservoir

Year: 2002

Wr Values Data for Bluegill and Largemouth Bass

				Deviation from State Average Percentiles		
	Range	Sample Size	Value	25%	50%	75%
Bluegill	0-7 (cm)	0	0	--	--	--
	8-14 (cm)	27	92	6	-1	-9
	≥ 15 (cm)	19	92	6	-1	-8
Largemouth Bass	19 (cm)	15	94	9	5	-2
	20-29 (cm)	9	68	-16	-20	-25
	≥ 30 (cm)	5	98	11	6	0

**Age and Growth Data For Bluegill and Largemouth Bass
(Frazier-Lee Method)**

		Age	I	II	III	IV	V	VI	VII
Bluegill	Sample Size (N)		43	43	43	38	20	14	3
	Length (mm)		47	77	109	133	165	187	203
	Deviation from State Means		5	-11	-19	-22	-7	2	8
Largemouth Bass	Sample Size (N)		28	13	11	5	3	3	3
	Length (mm)		128	228	269	327	401	431	449
	Deviation from State Means		2	-11	-46	-51	-29	-41	-55